



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,216	09/03/2003	Takanori Masui	116970	2609
25944	7590	09/14/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER GELAGAY, SHEWAYE	
			ART UNIT 2137	PAPER NUMBER
			MAIL DATE 09/14/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/653,216	<b>Applicant(s)</b> MASUI ET AL.	
	<b>Examiner</b> Shewaye Gelagay	<b>Art Unit</b> 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 27, 2007 has been entered.
2. Claims 1-13 and 15-18 are pending.

#### ***Claim Rejections - 35 USC § 112***

3. In view of the amendment filed July 27, 2007, the Examiner withdraws the rejection of claims 1-18 under 35 U.S.C. 112.

#### ***Response to Arguments***

4. Applicant's arguments filed July 27, 2007 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 15 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Russ et al. (hereinafter Russ) U.S. Publication 2003/0219127.

As per claims 1 and 17:

Russ teaches an information processing device comprising:

a data input interface for inputting encrypted data; (figure 6; page 11, paragraphs 104-109)

a decryption module for decrypting encrypted data inputted by the data input interface using a decryption key forming a pair with a first encryption key used to encrypt the data; (figure 6; page 11, paragraphs 104-109; ...the cryptographic device decrypts the service instance using the control word provided by the secure element)

a deciding device for deciding whether or not to encrypt data decrypted by the decryption module; (figure 6; page 11, paragraphs 104-109; ...processor determines an encryption scheme for the selected service instance. The encryption scheme can be either to encrypt or not encrypt the selected service instance. This determination is made for the decrypted service instance)

an encryption module for encrypting data using a second encryption key different from the first encryption key; (figure 6; page 11, paragraphs 104-109; ... the cryptographic device encrypts the service instance using an encryption scheme that was dynamically negotiated by the DSCT and the client) and

a storage device for storing data encrypted by the encryption module, wherein the encryption module encrypts data decided upon for encryption by the deciding device. (figure 6; page 9, paragraph 82; page 11, paragraphs 104-109)

As per claim 3:

Russ teaches all the subject matter as discussed above. In addition, Russ further discloses wherein the data input interface also inputs unencrypted data, and the encryption module also encrypts unencrypted data input by the data input interface. (figure 6; page 11, paragraphs 104-109; ...the determination is made for the decrypted service instance and for unencrypted service instances)

As per claims 15:

Russ teaches all the subject matter as discussed above. In addition, Russ further discloses deciding means for deciding whether or not to encrypt data inputted by the data input interface, wherein the encryption module encrypts data decided upon for encryption by the deciding means. (figure 6; page 11, paragraphs 104-109)

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2137

8. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russ et al. (hereinafter Russ) U.S. Publication 2003/0219127 and further in view of Saito U.S. Patent 7,093,295.

As per claim 2:

Russ teaches all the subject matter as discussed above. Russ does not explicitly disclose wherein an expiration data is not set for the second encryption key. Saito in analogous art, however, discloses wherein the key generator generates the second encryption key when power to the device is turned on. (col. 5, lines 65-67) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Russ with Saito in order to automatically handle re-encryption and re-decryption of stored data using a key that is stored in the device.

As per claim 4:

Russ teaches all the subject matter as discussed above. Russ does not explicitly disclose a key generator for generating the second encryption key. Saito in analogous art, however, discloses a key generator for generating the second encryption key. (col. 7, lines 49-57) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Russ with Saito in order to ensure the security for the information and for the key used by generating the key only when needed for decryption.

9. Claims 11-13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russ et al. (hereinafter Russ) U.S. Publication 2003/0219127 and further in view of Blakley III, (hereinafter Blakley) U.S. Patent 5,677,952.

As per claims 11 and 12:

Russ teaches all the subject matter as discussed above. Russ does not explicitly disclose a media reader capable of being installed with a removable portable storage media storing the encryption key, wherein the encryption module reads the second encryption key from the portable storage media installed in the media reader and performs encryption. Blakley in analogous art, however, discloses a media reader capable of being installed with a removable portable storage media storing the encryption key, wherein the encryption module reads the second encryption key from the portable storage media installed in the media reader and performs encryption. (col. 4, lines 40-65) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Russ with Blakley in order to enhance the security of the key by utilizing an identification that is unique to each device. (col. 6, lines 48-57; Blakley)

As per claim 13:

Russ teaches all the subject matter as discussed above. Russ does not explicitly disclose having encryption keys corresponding to each user using the device, wherein the encryption module performs encryption using an encryption key for the user corresponding to the data. Blakley in analogous art, however, discloses having encryption keys corresponding to each user using the device, wherein the encryption module performs encryption using an encryption key for the user corresponding to the data. (col. 6, lines 48-57) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Davis,

Achler and Saito with Blakley in order to erase secret keys when the authorized user logs off. (col. 6, lines 48-57; Blakley)

As per claim 18:

Russ teaches all the subject matter as discussed above. Russ does not explicitly disclose a memory controller for storing the second encryption key in the volatile memory. Blakley in analogous art, however, discloses a memory controller for storing the second encryption key in the volatile memory. (col. 6, lines 48-57) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Russ with Blakley in order to erase secret keys when the authorized user powers off the device. (col. 6, lines 48-57; Blakley)

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Russ et al. (hereinafter Russ) U.S. Publication 2003/0219127 in view of Davis U.S. Patent 5,805,706.

As per claim 16:

Russ teaches all the subject matter as discussed above. Russ does not explicitly disclose a printer for decrypting and printing data stored in the storage device. Davis in analogous art, however, further discloses a printer for decrypting and printing data stored in the storage device. (col. 3, line 51-col. 4, line 3) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Russ with Davis in order to allow information to be transferred from the computer system to a hard copy device. (col. 3, lines 65-67; Davis)



Art Unit: 2137

11. Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russ et al. (hereinafter Russ) U.S. Publication 2003/0219127 in view of Saito U.S. Patent 7,093,295 and further in view of Blakley III, (hereinafter Blakley) U.S. Patent 5,677,952.

As per claim 5:

The combination of Russ and Saito teaches all the subject matter as discussed above. Both references do not explicitly disclose a memory controller for storing the second encryption key in the volatile memory. Blakley in analogous art, however, discloses a memory controller for storing the second encryption key in the volatile memory. (col. 6, lines 48-57) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Russ and Saito with Blakley in order to erase secret keys when the authorized user powers off the device. (col. 6, lines 48-57; Blakley)

As per claim 6

The combination of Russ and Saito teaches all the subject matter as discussed above. Both references do not explicitly disclose wherein the key generator generates the second encryption key using information characteristic to the device itself. Blakley in analogous art, however, discloses wherein the key generator generates the second encryption key using information characteristic to the device itself. (col. 5, lines 41-60) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Russ and Saito with Blakley in

Art Unit: 2137

order to enhance the security of the key by utilizing an identification that is unique to each device. (col. 6, lines 48-57; Blakley)

As per claim 7:

The combination of Russ and Saito teaches all the subject matter as discussed above. Both references do not explicitly disclose wherein the key generator generates the second encryption key when power to the device is turned on. Blakley in analogous art, however, discloses wherein the key generator generates the second encryption key when power to the device is turned on. (col. 6, lines 48-57) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Russ and Saito with Blakley in order to erase secret keys when the authorized user powers off the device. (col. 6, lines 48-57; Blakley)

As per claims 8-10:

The combination of Russ and Saito teaches all the subject matter as discussed above. Both references do not explicitly disclose a media reader capable of being installed with a removable portable storage media storing key generation parameters for reading a key generation parameter stored on the installed portable storage media, wherein the key generator generates the second encryption key using the key generation parameter. Blakley in analogous art, however, discloses a media reader capable of being installed with a removable portable storage media storing key generation parameters for reading a key generation parameter stored on the installed portable storage media, wherein the key generator generates the second encryption key using the key generation parameter. (col. 5, lines 41-60) Therefore, it would have been

obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Russ and Saito with Blakley in order to enhance the security of the key by utilizing an identification that is unique to each device. (col. 6, lines 48-57; Blakley)

**Conclusion**

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shewaye Gelagay whose telephone number is 571-272-4219. The examiner can normally be reached on 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shewaye Gelagay



  
EMMANUEL L. MOISE  
SUPERVISORY PATENT EXAMINER

Application/Control Number: 10/653,216  
Art Unit: 2137

Page 11